

REMARKS

The Applicant and his/her agent appreciates the courteous and complete examination of the application by the Examiner. In view of the foregoing amendments and the following remarks, a reconsideration of the instant application is respectfully requested.

In order to expedite the prosecution of this application claims 61 and 65 have been amended. Claims 82-84 have been added to more completely cover certain aspects of the Applicant's invention. Claims 61-73 and 81-84 are now in this application.

Regarding the Claims

Regarding the Claim Objection(s)

1) The Examiner objected to claims 62, 63, 67, 71-73 and 81 for informalities, specifically that the claim status identifiers should be changed to (Previously Presented).

Regarding claims 62, 63, 67 and 71-73, the Applicant respectfully believes that the Examiner may be in error, since claims 62, 63, 67 and 71-73 were added to the present application in a preliminary amendment at the time of filing, thereby making them original claims. Support for this argument is proven by the Filing Receipt dated 03/23/2007, indicating the filing of the Preliminary Amendment on 06/27/2006, which is the filing date of the present application. Further proof can be found in the Electronic Acknowledgement Receipt dated 06/27/2006 which confirms the filing of the present application, along with the Preliminary Amendment, thereby showing that the Preliminary Amendment was filed along with the application.

The Applicant respectfully points out that MPEP § 1.115(a) states that "A preliminary amendment that is present on the filing date of an application is part of the original disclosure of the application".

In response to the Examiner's objection, claim 81 has been amended to change the claims status identifier from "(Original)" to "(Previously Presented)", thereby overcoming this objection.

Regarding the § 112 Claim Rejection(s)

2) The Examiner rejected claims 61-73 and 81 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, specifically that claims 61 and 65 recite an “expanded mesh”.

In response to the Examiner’s rejection, claims 61 and 65 have been amended to change the limitation “expanded mesh” to “ornamesh”, support for which is found throughout the present application as originally filed.

Regarding the § 103 Claim Rejection(s)

3) The Examiner rejected claims 61-64 and 81 under 35 U.S.C. 103(a) as being unpatentable over Calfee and Brookhart and Hollis. The Examiner’s rejection is respectfully traversed, because the combination of cited references does not teach the Applicant’s invention as claimed.

Prior to providing arguments toward the allowability of the claims, the Applicant would like to point out that hindsight has been prohibited by the courts: "To imbue one of ordinary skill in the art with such knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 1553 (Fed. Cir. 1983). "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071 1075 (Fed. Cir. 1988). One "cannot pick and choose among individual parts of assorted prior art references 'as a mosaic' to recreate a facsimile of the claimed invention". *Akzo NV v. U.S. International Trade Commission*, 808 F.2d 1471 1481 (Fed. Cir. 1986) quoting from *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 1552 (Fed. Cir. 1983).

Additionally, as the Supreme Court recently explained “a patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S., 82 U.S.P.Q.2d 1385, 1396 (2007). Moreover, “[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* (citing *In re Kahn*, 441 F. 3d

977, 988 (Fed. Cir. 2006) cited with approval in KSR). “To facilitate review, this analysis should be made explicit.” *Id.* Furthermore, “[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning. See Graham, 383 U. S., at 36 (warning against a ‘temptation to read into the prior art the teachings of the invention in issue’ and instructing courts to ‘guard against slipping into the use of hindsight’ (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F. 2d 406, 412 (CA6 1964))).” *Id.* at, 82 U.S.Q.P.2d at 1397.

Regarding independent claim 61, this claim has been amended to further describe the inner plies as “*at least one of said inner plies being adjacent to at least one of said first and second outer layers*” and the dissipating element as being between and “*juxtaposed to said inner plies*”, support for which is found in Figs. 1-3 of the present application as originally filed. Figs. 1-3 of the present application illustrates at least one of the inner plies (2) adjacent at least one of the outer layers (4), and the dissipating element (1) between and close together or side by side the inner plies (2), wherein the term “juxtaposition” is defined as “the state of being close together or side by side”.

An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Furthermore, as stated in MPEP 2163, while there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure. The Applicant therefore believes that above-amended limitation in claim 61 is supported by the original application, as described above. See, e.g., *Vas-Cath*, 935 F.2d at 1565, 19 USPQ2d at 1118 (“drawings alone may provide a ‘written description’ of an invention as required by Sec. 112*”).

The Calfee, Brookhart or Hollis references do not disclose, teach or suggest a dissipating element which dissipates and redirects a loading in the longitudinal direction of the inner plies. In contrast, the Calfee reference specifically discloses the glass fiber layer (12) as dissipating the load and not the corrugated metal foil (14, dissipating element), see col. 1, lines 51-53 reproduced herewithbelow in italics. The outer layers of claim 61 are not primarily provided to

dissipate energy. The dissipation of any incoming loading is the primary function of the “*dissipating element*”, which is in contrast to Calfee.

“An impact resistant laminate was described and claimed in referenced copending application Ser. No. 48,961. The laminate therein comprised both GF layers and strategically located glass fiber layers (GIF). It was unexpectedly found that a glass fiber layer located on the side of the laminate opposite from the side experiencing the impacts significantly improves resistance to impacts. *It appears that the glass fiber layer provides a mechanism by which the energy of impact can be dissipated over a large area.* When employed solely on the impact side, however, glass fibers do not significantly improve the desired impact properties of the laminate. Further, synergistic improvement in impact resistance was noted when glass fibers comprised the top and bottom layers.”

It can therefore be appreciated that the Calfee reference teaches away from using an element located between and juxtaposition at least two inner plies so as to dissipate a load in a longitudinal direction of the plies. Applicant additionally believes, therefore that Calfee also teaches away from combining any other reference having a disclosure of an element located between and juxtaposition two plies which dissipates a load in the longitudinal direction of the plies. A reference should be considered as a whole, and portions arguing against or teaching away from the claimed invention must be considered. See *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986).

Still in further contrast, it is believed that any modification of Calfee to have the corrugate metal foil layer (14) as dissipating a load the longitudinal direction of the glass fibers (12) or graphite fiber layers (13), would change the principle operation of Calfee as specifically described by Calfee. Additionally, if the proposed modification or combination of the prior art would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification (MPEP 2143.01(VI)). In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Furthermore, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the

claims prima facie obvious (MPEP 2143.01(VI)). In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Since the Calfee, Brookhart or Hollis references do not disclose, teach, or suggest a dissipating element which dissipates and redirects a loading in the longitudinal direction of the inner plies, then the Examiner used a proposed modification of the prior art in the § 103 rejection of the claims. It can therefore be appreciated that since the Examiner's proposed modifications of the Calfee, Brookhart or Hollis references do change the principle of operation of the prior art, then the Calfee, Brookhart or Hollis references are not sufficient to render the claims obvious.

Furthermore, the Calfee, Brookhart or Hollis references do not disclose, teach or suggest at least one of the inner plies adjacent to at least one of outer layers, in combination with the dissipating element as being between and in juxtaposition to the inner plies.

As indicated on page 7 of the above-identified office action, the Examiner relies on the glass fibers (12) and the graphite fiber layers (13) of Calfee as disclosure toward the inner plies. In contrast with amended claim 61, the inner plies (glass fibers, 12) of Calfee are not in juxtaposition with the dissipating element (corrugated metal foil layers, 14), so the glass fibers (12) cannot be relied upon toward one of the inner plies. If the Examiner where to rely on the graphite fiber layers (13) as both of the claimed inner plies, then they would teach at least one of them as being adjacent at least of the outer layers (metal foil layers, 11), as illustrated in Fig. 1 of Calfee reproduced herewithbelow.

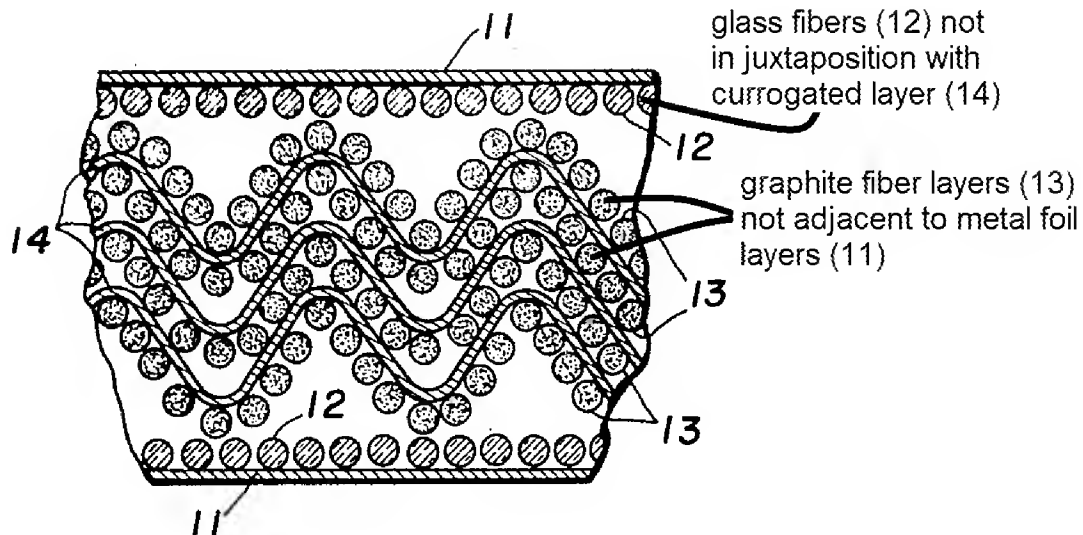


FIG. 1.

*Reproduced Fig. 1 of Calfee showing glass fibers (12) **not** in juxtaposition with corrugated layer (14), and graphite layers (13) **not** adjacent to outer layers (11)*

Even still further in contrast, the Applicant respectfully reminds the Examiner that neither non-existent nor non-functional attributes of a prior art invention cannot be imparted onto Applicant's invention to find a case for *prima facie* obviousness. Calfee does not have at least one of the inner plies adjacent to at least one of outer layers, in combination with the dissipating element as being between and juxtaposition the inner plies, nor can it. Thus Calfee not only has not taught an equivalent element, any argument of the Examiner that the Calfee reference will function the same way is not possible. If anything, Calfee teaches away from the current invention as one of ordinary skill in the art would be led to do the opposite of what the current invention has accomplished. One would not be led to believe that glass fibers not in juxtaposition with a dissipating element could accomplish the dissipating of load in a longitudinal direction of inner plies when the glass fibers are not between two inner plies. Applicant respectfully maintains the Examiner has not proven a *prima facie* case for obviousness and request that the rejection be withdrawn.

Therefore it is believed that since the Calfee reference does not disclose, teach or suggest all the limitations of claim 61, that Calfee teaches away from using a dissipating element between and juxtaposed to two inner plies for dissipating a load in a longitudinal direction of the inner plies, and that any modification of Calfee changes its principle operation, then the Calfee reference is not sufficient to render claim 61 *prima facie* obvious.

Regarding claims 62-64 and 81, these claims are felt to be patentably distinguished over the prior art references because of their above-mentioned dependency from amended claim 61.

4) The Examiner rejected claims 61-73 under 35 U.S.C. 103(a) as being unpatentable over Calfee and Chavannes and in further view of Hollis. The Examiner's rejection is respectfully traversed, because the combination of cited references does not teach the Applicant's invention as claimed.

The Examiner is directed to the above arguments toward amended claim 61, specifically regarding the Calfee reference. Therefore it is believed that since the Calfee reference does not disclose, teach or suggest all the limitations of claim 61, that Calfee teaches away from using a dissipating element between and juxtaposed to two inner plies for dissipating a load in a

longitudinal direction of the inner plies, and that any modification of Calfee changes its principle operation, then the Calfee reference is not sufficient to render claim 61 *prima facie* obvious.

Regarding claims 62-73, these claims are felt to be patentably distinguished over the prior art references because of their above-mentioned dependency from amended claim 61.

Further regarding claim 71, as indicated by the Examiner in connection with *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980) and MPEP § 2112, the burden of proof has been shifted to the Applicant to indicate that the Calfee reference does not inherently possess properties of claim 71.

The Applicant respectfully points out that “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531,1534,28 USPQ2d 1955, 1957 (Fed.Cir.1993)”, see MPEP §2112(IV). It is believed that the Examiner’s obviousness rejection of claim 71 based upon inherency is in error. The Examiner states on page 17 in the Final office action that “Calfee in view of Chavannes and Hollis are all directed to impact resistant structures and therefore it is reasonable to presume that the claimed properties would be inherent or obvious over the combination”. It can therefore be appreciated, by the Examiner’s own admission, that the structure in the prior art reference are presumed to “*create an equilibrium of dissipated loads in said laminate structure with a component of the outer loading being redistributed in a longitudinal direction to the main axis of said reinforcement plies*” and is thereby not sufficient to establish inherency. Therefore, since the Calfee reference does not disclose, teach, or suggest the structure of multiple dissipating elements that create an equilibrium of dissipated loads in the laminate structure with a component of the outer loading being redistributed in a longitudinal direction to the main axis of the reinforcement plies, that the structure and function relied upon by the Examiner is presumed, and that MPEP §2112(IV) states that if a characteristic may occur or be present in the prior art is not sufficient to establish inherency, then it is respectfully concluded and proven that the limitation in claim 71 is not inherently found in the Calfee, Chavannes or Hollis references and that claim 71 is in condition for allowance.

The Applicant further points out that inherency may not be established by probabilities or possibilities, and by the mere fact that a certain thing may result from a given set of circumstances is not sufficient. See *In re Robertson*, 169 F.3d 743,745,49 USPQ2d 1949,1950-

51 (Fed.Cir.1999), wherein the courts ruled that a claimed invention having three separate elements and the prior art reference has two elements was held that the reference did not disclose a separate third element, either expressly or inherently. With this in mind, the preemption of the claim properties of the Calfee, Chavannes or Hollis references cannot be used to inherently anticipate the limitation in claim 71 because the Calfee specifically teaches away from the limitation of claim 71 as discussed above regarding claim 61. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. See *In re Runion*, 1993 U.S. App. Additionally, the principle of inherency is a question of fact, and that an inherent property used in an anticipation rejection has to flow naturally from what is taught in a reference. See *Stoller v. Ford Motor Co.*, 1991 U.S. App. LEXIS 1084; 18 U.S.P.Q.2D (BNA) 1545.

5) The Examiner rejected claims 61-73 under 35 U.S.C. 103(a) as being unpatentable over Calfee and Meyer and in further view of Hollis. The Examiner's rejection is respectfully traversed, because the combination of cited references does not teach the Applicant's invention as claimed.

The Examiner is directed to the above arguments toward amended claim 61, specifically regarding the Calfee reference. Therefore it is believed that since the Calfee reference does not disclose, teach or suggest all the limitations of claim 61, that Calfee teaches away from using a dissipating element between and juxtaposed to two inner plies for dissipating a load in a longitudinal direction of the inner plies, and that any modification of Calfee changes its principle operation, then the Calfee reference is not sufficient to render claim 61 *prima facie* obvious.

Regarding claims 62-73, these claims are felt to be patentably distinguished over the prior art references because of their above-mentioned dependency from amended claim 61.

Further regarding claim 71, the Examiner is directed to the above discussion regarding claim 71, specifically in connection with inherency and the presumption of the prior art references.

Regarding the New Claims

The Applicant appreciates the opportunity to add new claims to the present application to cover certain aspects of the invention as originally filed. Claims 82-84 have been added which

further describes the inner plies and dissipating element. Support for new claims 82 and 83 can be found in Figs. 1-3 of the present application as originally filed, which illustrates the inner plies as having a substantially sinusoidal cross-section, with at least one apex of the two inner plies being adjacent to the first and second outer layers respectively.

An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Furthermore, as stated in MPEP 2163, while there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure. The Applicant therefore believes that newly added claims 82 and 83 are supported by the original application, as described above. See, e.g., *Vas-Cath*, 935 F.2d at 1565, 19 USPQ2d at 1118 ("drawings alone may provide a 'written description' of an invention as required by Sec. 112*").

Conclusion

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Applicant has endeavored to address all of the Examiner's concerns as expressed in the Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above-remarks are made in order to improve the clarity of claim language, to correct grammatical mistakes or ambiguities, and to otherwise improve the clarity of the claims to particularly and distinctly point out the invention to those of

skill in the art. Finally, Applicant submits that the claim limitations above represent only illustrative distinctions. Hence, there may be other patentable features that distinguish the claimed invention from the prior art.

With the above amendments being fully responsive to all outstanding rejections and formal requirements, it is respectfully submitted that the claims are now in condition for allowance, and a notice to that effect is earnestly solicited. Should the Examiner feel that there are further issues which might be resolved by means of telephone interview, the Examiner is cordially invited to telephone the undersigned at (403) 444-5695, or email at davidguerra@internationalpatentgroup.com

A Request for Continued Examination fee of \$465.00 is provided.

Respectfully Submitted,

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CERTIFICATE OF TRANSMISSION/MAILING

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On (Date) 05/08/2012 by David A. Guerra /David A. Guerra/